

NOTES ON THE WINTERING HABITS OF THE WHITE-THROATED SPARROW (*Zonotrichia albicollis*)

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One of the most interesting, common, and friendly birds in the southland in winter is the White-throated Sparrow. Although not very well known to the people, it is friendly and gives a very good opportunity for the observation of its habits to be made during the winter months where it is a winter resident. This paper is the result of two winters' observations and notes made during 1923-24. During the winter of 1925-26 the junior author made copious notes from his observations, from the time of their arrival in the fall of the year till their departure in the following spring.

Auburn is well situated for the study of this bird, as it is located at the end of the Piedmont Foothills region with grassy fields and mixed forests. A great number of small creeks permeate this region, resulting in a considerable undergrowth of bushes and vines in which the White-throated Sparrow spends most of its existence during the winter months. It is also in this type of locality that most of the birds feed upon various types of food.

Although this sparrow is a regular winter resident in this section of the country, it varies to a great extent year after year. During the winter of 1923-24, this bird, although present, was quite rare, and not commonly found in the city limits. Its time was primarily restricted to the protected wooded areas. During the winter of 1924-25, the best observations were made, but the notes were not as fully completed as during the last year. During the 1924-25 season the birds were everywhere abundant, especially in the town. In the early morning and late afternoons these birds were commonly found feeding in the yards upon seeds and other types of food that they were able to pick up. They, at all times, appeared to be very friendly and one could observe them very closely before the birds would take flight. It was during this period that forty birds were captured and banded.

During the winter of 1925-26, which was a very severe winter here in the south, there were but relatively few birds present. An intensive study was made to verify the observations of the previous years, with especial reference to the song, associates, general habits, and food. The greater amount of these observations were made by the junior author.

Although, as a general rule, birds do not sing during the winter season, the white-throat is the best songster in the winter, its sweet,

yet plaintive song coming from the low bushes in early morning or afternoon. There are two call notes used by this sparrow, the first being low, tranquil, yet musical and suggests pity to the ear of the listener. It is very easily distinguished from all of the other birds and also from the second call note which ends in a sharp metallic chirp. This latter seems to donate warning to the other birds and also scolding. It is not as common as the former and at times not easily made out. The true song of this sparrow is the same as that given during the breeding and nesting season in the northern states. It is very sweet and plaintive. Although it is not a loud song, it is very vibrant and carries a remarkably long distance. There are also two types of songs present. The first one starts on a low pitch, the succeeding notes being very high and tremulous. The flute-like quality of this second pitch gradually becomes fainter and fainter, making one believe that the bird is traveling away at a very rapid speed. The other song usually starts at a higher pitch, the succeeding notes being lower. As its song is quite easily imitated, one can very often whistle to a bird that is singing, and in that way cause it to answer repeatedly, and at times, the bird can be attracted to the one whistling. This is especially true if one remains concealed as much as possible and remains motionless. This has often been done.

The time of the day in which the birds sing most frequently is in the morning up to nine o'clock, especially in the spring. During the shorter days of winter, the song is not so common, but may be heard at almost any time of the day. It also sings to a considerable extent in the latter part of the day, resting during the mid-day hours.

Study of the White-throated Sparrow in thickets will acquaint the observer with the bird's associates. The Towhee or Chewink (*Pipilo erythrophthalmus*) will always be found accompanying this species. Other birds found in similar places were: the Song Sparrow (*Melospiza melodia*), Cardinal (*Cardinalis cardinalis*), Carolina Wren (*Thryothorus ludovicianus*), Brown Thrasher (*Toxostoma rufum*), Slate-colored Junco (*Junco hyemalis*), American Redstart (*Setophaga ruticilla*), Ruby-crowned Kinglet (*Regulus calendula*), Louisiana Water-Thrush (*Seiurus motacilla*), Myrtle Warbler (*Dendroica coronata*), Hooded Warbler (*Wilsonia citrina*), Black and White Warbler (*Mniotilta varia*), Summer Tanager (*Piranga rubra*), Wood Thrush (*Hylocichla mustelina*), Carolina Chickadee (*Parus carolinensis*), Tufted Titmouse (*Parus bicolor*), Brown Creeper (*Certhia familiaris americana*). The Towhee is the White-throated Sparrow's closest friend. It is found roosting along with the White-throated Sparrow in

the underbrush of the thickets. The general outline of the Towhee is very similar to that of the White-throated Sparrow; a profile view of the two birds as seen at twilight, in the clearing of the thicket, shows this very plainly. The two birds as seen under these conditions appear to be the same color throughout and body carriage and size serve as the only method of discrimination.

Just before sunset on the afternoon of October 11, the Towhee's ringing call note was heard some distance up the stream from where I was watching the different migratory forms as they were engaged in catching insects along the banks of the stream, indicating that the day was almost spent. I began immediately to strain my ears and eyes for the purpose of discovering the Towhee's companions. Only a few minutes passed before the Towhee made its appearance among the grape vines which offered a plain view in the clearing of the thicket. A moment later the Towhee took flight and almost immediately there were eight or ten White-throated Sparrows occupying the entanglement. The Towhee's call note was again heard farther down the stream and almost instantly the visitors followed their host to the denser section of the swamp down the stream, taking up their excitive note upon reaching their destination.

During the winter season of 1924-25, trips were made at night in order to catch birds for banding purposes. In a number of heaps of cut pine branches, a great number of birds were found spending the night for protection. In these heaps associated with the White-throated Sparrows were the following birds closely associated: Chipping Sparrows (*Spizella passerina*), Vesper Sparrows (*Pooecetes gramineus*), Slate-colored Juncos (*Junco hyemalis*), and the American Pipit (*Anthus rubescens*) in less numbers. This was the only time in which the Pipits and white-throats were found together.

Five White-throated Sparrows were taken during the winter as follows: November 30, December 14, December 31, January 30, February 17. Analysis of these stomachs showed that the largest per cent of the bird's food consisted of insects of different species; the beetles seeming to be dominant and the remainder of the contents consisted of weed seeds mostly, with some small pieces of plant buds.

Two Slate-colored Juncos were taken January 30 and analysis of these stomachs showed that nearly the total food of these birds consisted of weed seeds. One Brown Thrasher was taken January 30 and an analysis of the stomach contents showed that the food consisted of about one-third weed seeds to two-thirds insects.

There were no particles of fruit found in any of the stomachs. Cotton was planted in an adjacent field which held its foliage until late in the season offering an ideal place for hibernation of boll weevils in the thicket, nevertheless none of these insects were found in any of the stomachs taken. It was found that the White-throated Sparrow consumed most of its food before 10:00 A. M. each day as the per cent of the daily ration indicated when taken at different times of the day.

Migration. This bird is a winter resident in this part of the country and very careful observations are required to determine the date of its first arrival. The birds that come first are usually few in number and the recognition of its song is almost more important than sight, due to the secretive habits of the birds when they first come south. Later, as the numbers increase, they seem to lose their timidity and are easily observable. A considerable amount of time is required in the field in order to detect the first arrival.

During the season of 1924-25, the first birds arrived on October 14, gradually increasing in numbers until by November 15, there were a great number present. These stayed through the mild winter until the middle part of April. The last record of a White-throated Sparrow was on April 25, 1925.

During the season of 1925-26, the first bird observed was on October 5, 1925, with the numbers gradually increasing. There were never many birds present due to the severe winter and most of them kept in the protected woods, venturing out only when the temperature climbed and the prospects were for a bright day. The winter quota of birds was reached about November, and the birds started to leave toward the end of April, the last one being heard on May 7. In general, the time of arrival and departure is very close year after year, the temperature condition governing the dates and also the number of birds in a locality.

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HOME LIFE OF THE BLACK TERN IN WISCONSIN

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Another season of studying the Black Tern (*Clidonias nigra surinamensis*) came to a close on our last trip to the nearest colony of these birds at Big Muskego Lake, Waukesha County, Wisconsin, on July 24, 1926. Early in June Mr. J. Jeske, Assistant Artist of the Milwaukee Public Museum, Mr. R. Doughty, bird lover and photogra-